EAST Search History / Interference Search

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	11741	ORGANOSILICON	US-PGPUB; USPAT	ADJ	OFF	2007/10/24 08:20
L2	957	CYCLIC WITH L1	US-PGPUB; USPAT	ADJ	OFF	2007/10/24 08:20
L3	18	ALKOXYSILANE WITH L2	US-PGPUB; USPAT	ADJ	ON	2007/10/24 08:20

CAS ONLINE PRINTOUT

=> d his

(FILE 'HOME' ENTERED AT 07:14:11 ON 24 OCT 2007)

FILE 'REGISTRY' ENTERED AT 07:14:20 ON 24 OCT 2007
L1 STRUCTURE UPLOADED
L2 1 S L1
L3 15 S L1 FUL

FILE 'CAPLUS' ENTERED AT 07:15:09 ON 24 OCT 2007
L4 14 S L3

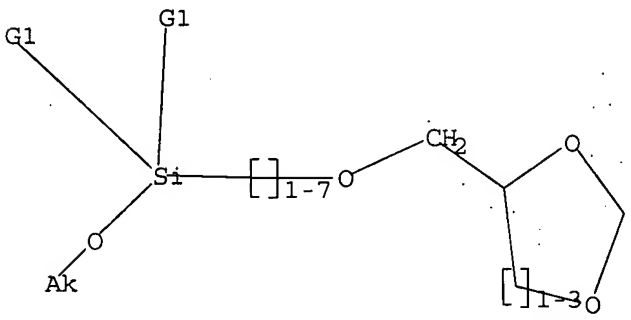
FILE 'REGISTRY' ENTERED AT 07:18:15 ON 24 OCT 2007
L5 STRUCTURE UPLOADED
L6 2016 S L5 FUL

FILE 'CAPLUS' ENTERED AT 07:18:44 ON 24 OCT 2007

FILE 'REGISTRY' ENTERED AT 07:18:49 ON 24 OCT 2007
L7 STRUCTURE UPLOADED
L8 STRUCTURE UPLOADED
L9 74 SEARCH L8 SSS SUB=L6 FULL

FILE 'CAPLUS' ENTERED AT 07:23:00 ON 24 OCT 2007
L10 2270 S L9
L11 2 S L10 AND L4

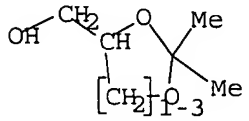
=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 Ak,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,s-BuO,t-BuO

Structure attributes must be viewed using STN Express query preparation.

=> d l8
L8 HAS NO ANSWERS
L8 STR



G1 Ak,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,s-BuO,t-BuO

Structure attributes must be viewed using STN Express query preparation.

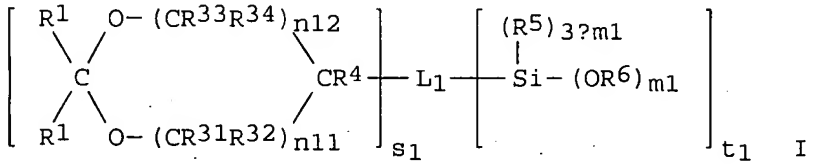
CAS ONLINE PRINTOUT

=> d bib abs hitstr 1-2 l11

L11 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:1074041 CAPLUS
DN 143:369971
TI Sol-gel reaction products, solid electrolytes, protonic conductors, and membrane-electrode assemblies for fuel cells
IN Wariishi, Koji
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 40 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005272556	A	20051006	JP 2004-86053	20040324

PRAI JP 2004-86053 20040324
OS MARPAT 143:369971
GI

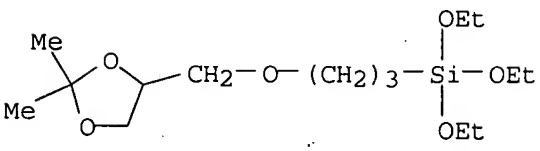


I

AB The reaction products are prepared from I (R1, R2 = H, alkyl, aryl, heterocyclic ring, R1 and R2 may link together to form a ring; R31, R32, R33, R34, R4 = H, alkyl, aryl, heterocyclic ring; R5 = alkyl, aryl, heterocyclic ring; R6 = H, alkyl, aryl, silyl; m1 = 1-3; n11, n12 = 0-4; L1 = single bond, linkage group with valency (s1 + t1); s1, t1 = 1-4), and compds. having proton-donating substituent groups. The protonic conductors show high protonic conductivity and low methanol permeability.

IT 863015-08-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of cyclic acetal-containing alkoxysilanes for sol-gel reaction products for protonic conductors of fuel cells)

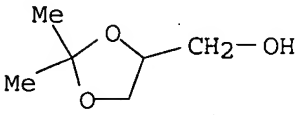
RN 863015-08-1 CAPLUS
CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxy- (9CI) (CA INDEX NAME)



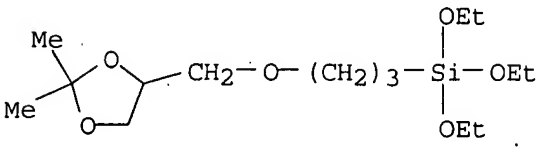
IT 100-79-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of cyclic acetal-containing alkoxysilanes for sol-gel reaction products for protonic conductors of fuel cells)

CAS ONLINE PRINTOUT

RN 100-79-8 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2,2-dimethyl- (CA INDEX NAME)



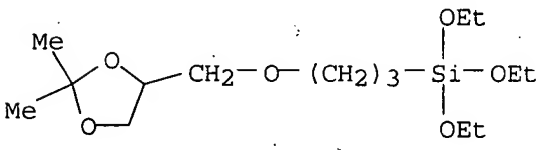
IT 863015-08-1DP, polymers with oxidized mercaptoalkyltrialkoxysilanes and alkoxysilanes 866228-58-2P
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sol-gel reaction products of cyclic acetal-containing alkoxysilanes and proton-donating compds. for protonic conductors of fuel cells)
RN 863015-08-1 CAPLUS
CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxy- (9CI) (CA INDEX NAME)



RN 866228-58-2 CAPLUS
CN 1-Propanesulfonic acid, 3-(triethoxysilyl)-, polymer with [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxysilane and 4,4,13,13-tetraethoxy-3,14-dioxa-4,13-disilahexadecane (9CI) (CA INDEX NAME)

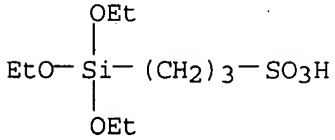
CM 1

CRN 863015-08-1
CMF C15 H32 O6 Si



CM 2

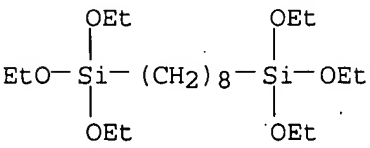
CRN 260784-99-4
CMF C9 H22 O6 S Si



CAS ONLINE PRINTOUT

CM 3

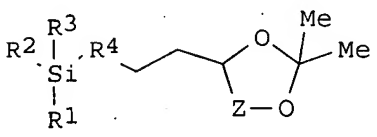
CRN 52217-60-4
CMF C20 H46 O6 Si2



L11 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:902902 CAPLUS
DN 143:230419
TI Preparation of organosilicon compounds for organic silicone resin having diols with good storage stability
IN Komuro, Katsuhiko; Suzuki, Hiroshi
PA Toagosei Co., Ltd., Japan
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005077960	A1	20050825	WO 2005-JP1972	20050209
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	KR 2007010124	A	20070122	KR 2006-718987	20060915
	US 2007173625	A1	20070726	US 2007-589262	20070111
PRAI	JP 2004-39064	A	20040216		
	JP 2004-39065	A	20040216		
	WO 2005-JP1972	W	20050209		

GI



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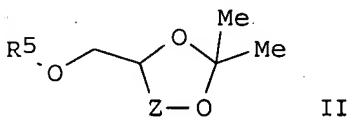


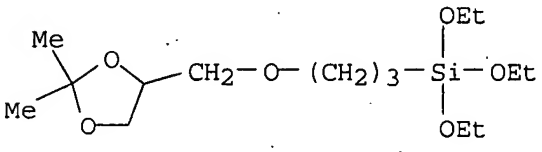
II

AB The organosilicon resin having a diol is prepared by hydrolyzing/condensing an organic compound I obtained by hydrosilylation reaction between a compound II and a silane compound R1R2R3SiH with a polyfunctional alkoxysilane, wherein

R1, R2, R3 = C1-6 alkyl or alkoxy; R4 = C2-6 alkylene; R5 = alkene having a terminal C:C bond and Z = C1-3 alkylene. The organosilicon resin is produced by the hydrolysis/condensation of a mixture comprising the organosilicone compound I and a mol. weight modifier. Thus, 227 mmol 2,2-dimethyl-1,3-dioxolane-4-methanol and 250 mmol allyl bromide were reacted in the presence of sodium hydride, 119 mmol of the resulting 4-[(allyloxy)methyl]-2,2-dimethyl-1,3-dioxolane was reacted with 131 mmol triethoxysilane in the presence of a divinyltetramethyldisiloxane platinum complex to give 4-[(3-triethoxysilylpropyloxy)methyl]-2,2-dimethyl-1,3-dioxolane, 12 mmol of which was reacted with 44.1 mmol methyltrimethoxysilane and 12 mmol hexamethyldisiloxane in the presence of 3.74 g 1.5% aqueous hydrochloric acid for 1.5 h, reacted with hexamethyldisilazane, and dried to give a silsesquioxane resin having diols, showing good storage stability.

IT 863015-08-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of organosilicon compds. for organic silicone resin having diols)

RN 863015-08-1 CAPLUS
CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxy- (9CI) (CA INDEX NAME)

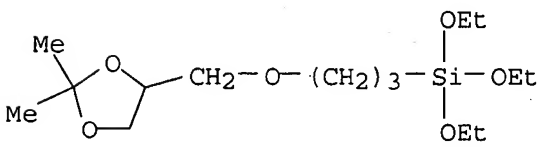


IT 863015-09-2DP, trimethylsilyl-terminated, deprotected
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of organosilicon compds. for organic silicone resin having diols)

RN 863015-09-2 CAPLUS
CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxy-, polymer with trimethoxymethylsilane (9CI) (CA INDEX NAME)

CM 1

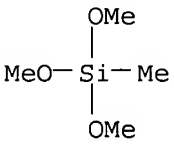
CRN 863015-08-1
CMF C15 H32 O6 Si



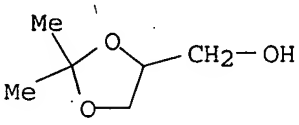
CM 2

CRN 1185-55-3
CMF C4 H12 O3 Si

CAS ONLINE PRINTOUT



IT 100-79-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of organosilicon compds. for organic silicone resin having diols)
RN 100-79-8 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2,2-dimethyl- (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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CAS ONLINE PRINTOUT

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=> d his

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     FILE 'REGISTRY' ENTERED AT 07:14:20 ON 24 OCT 2007
L1             STRUCTURE UPLOADED
L2               1 S L1
L3              15 S L1 FUL

     FILE 'CAPLUS' ENTERED AT 07:15:09 ON 24 OCT 2007
L4              14 S L3

     FILE 'REGISTRY' ENTERED AT 07:18:15 ON 24 OCT 2007
L5             STRUCTURE UPLOADED
L6           2016 S L5 FUL

     FILE 'CAPLUS' ENTERED AT 07:18:44 ON 24 OCT 2007

     FILE 'REGISTRY' ENTERED AT 07:18:49 ON 24 OCT 2007
L7             STRUCTURE UPLOADED
L8             STRUCTURE UPLOADED
L9              74 SEARCH L8 SSS  SUB=L6 FULL

     FILE 'CAPLUS' ENTERED AT 07:23:00 ON 24 OCT 2007
L10           2270 S L9
L11              2 S L10 AND L4
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L12              7 S E1-E7

     FILE 'REGISTRY' ENTERED AT 07:36:49 ON 24 OCT 2007
L13            STRUCTURE UPLOADED
L14             50 S L13
L15         250022 S L13 FUL

     FILE 'CAPLUS' ENTERED AT 07:38:03 ON 24 OCT 2007
L16         155778 S L15
L17             14 S L16 AND L4

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L18          15476 SEARCH L13 CSS  SUB=L15 FULL

     FILE 'CAPLUS' ENTERED AT 07:40:53 ON 24 OCT 2007

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=> s l19 and l4
L20              2 L19 AND L4

=> d l13
L13 HAS NO ANSWERS
L13             STR
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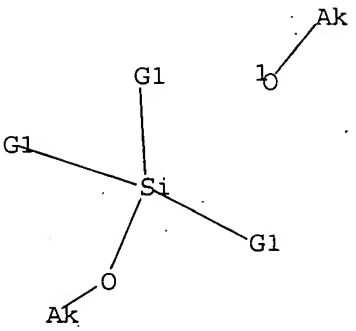
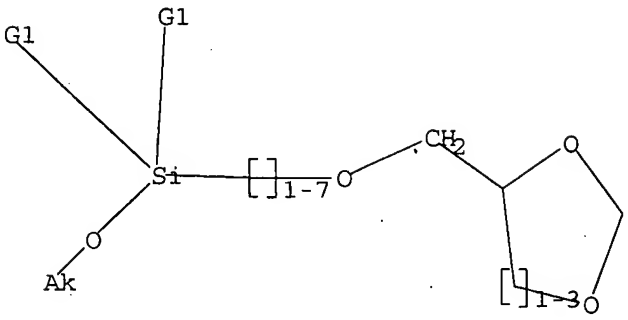
CAS ONLINE PRINTOUT



G1 Ak,[@1]

Structure attributes must be viewed using STN Express query preparation.

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 Ak,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,s-BuO,t-BuO

Structure attributes must be viewed using STN Express query preparation.

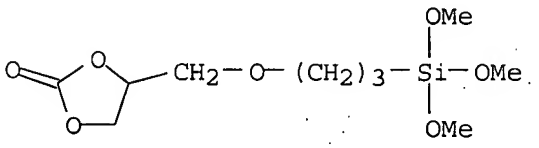
=> d bib abs hitstr 1-2 l20

L20 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:287048 CAPLUS
DN 146:341046
TI Cyclic carbonate-modified organosilicon non-aqueous electrolytes for secondary batteries and capacitors
IN Nakanishi, Tetsuo; Kashida, Meguru; Miyawaki, Satoru
PA Shin-Estu Chemical Co., Ltd., Japan
SO U.S. Pat. Appl. Publ., 12pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

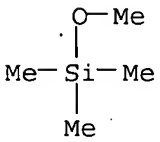
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007059607	A1	20070315	US 2006-514106	20060901
	JP 2007077052	A	20070329	JP 2005-265551	20050913
	KR 2007030682	A	20070316	KR 2006-87897	20060912
	CN 1931863	A	20070321	CN 2006-10151899	20060913

CAS ONLINE PRINTOUT

PRAI JP 2005-265551 A 20050913
AB A cyclic carbonate-modified silane or siloxane is combined with a nonaq. solvent and an electrolyte salt to form a non-aqueous electrolytic solution This electrolyte is used in a secondary battery which has improved temperature and cycling characteristics.
IT 42345-73-3P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cyclic carbonate-modified organosilicon non-aqueous electrolytes for secondary batteries and capacitors)
RN 42345-73-3 CAPLUS
CN 1,3-Dioxolan-2-one, 4-[[3-(trimethoxysilyl)propoxy]methyl]- (CA INDEX NAME)



IT 1825-61-2, Trimethylmethoxysilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclic carbonate-modified organosilicon non-aqueous electrolytes for secondary batteries and capacitors)
RN 1825-61-2 CAPLUS
CN Silane, methoxytrimethyl- (CA INDEX NAME)



L20 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:902902 CAPLUS
DN 143:230419
TI Preparation of organosilicon compounds for organic silicone resin having diols with good storage stability
IN Komuro, Katsuhiko; Suzuki, Hiroshi
PA Toagosei Co., Ltd., Japan
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005077960	A1	20050825	WO 2005-JP1972	20050209

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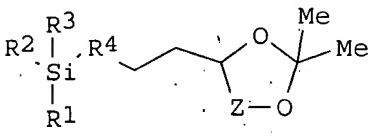
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

	KR 2007010124	A	20070122	KR 2006-718987	20060915
	US 2007173625	A1	20070726	US 2007-589262	20070111
PRAI	JP 2004-39064	A	20040216		
	JP 2004-39065	A	20040216		
	WO 2005-JP1972	W	20050209		

GI



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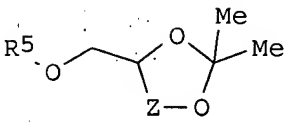


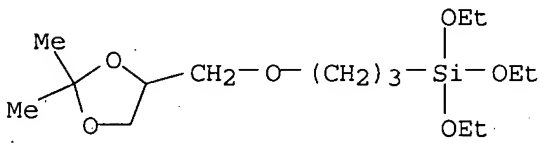
II

AB The organosilicon resin having a diol is prepared by hydrolyzing/condensing an organic compound I obtained by hydrosilylation reaction between a compound II and a silane compound R1R2R3SiH with a polyfunctional alkoxysilane, wherein R1, R2, R3 = C1-6 alkyl or alkoxy; R4 = C2-6 alkylene; R5 = alkene having a terminal C:C bond and Z = C1-3 alkylene. The organosilicon resin is produced by the hydrolysis/condensation of a mixture comprising the organosilicone compound I and a mol. weight modifier. Thus, 227 mmol 2,2-dimethyl-1,3-dioxolane-4-methanol and 250 mmol allyl bromide were reacted in the presence of sodium hydride, 119 mmol of the resulting 4-[(allyloxy)methyl]-2,2-dimethyl-1,3-dioxolane was reacted with 131 mmol triethoxysilane in the presence of a divinyltetramethyldisiloxane platinum complex to give 4-[(3-triethoxysilylpropyloxy)methyl]-2,2-dimethyl-1,3-dioxolane, 12 mmol of which was reacted with 44.1 mmol methyltrimethoxysilane and 12 mmol hexamethyldisiloxane in the presence of 3.74 g 1.5% aqueous hydrochloric acid for 1.5 h, reacted with hexamethyldisilazane, and dried to give a silsesquioxane resin having diols, showing good storage stability.

IT 863015-08-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of organosilicon compds. for organic silicone resin having diols)

RN 863015-08-1 CAPLUS

CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxy- (9CI) (CA INDEX NAME)



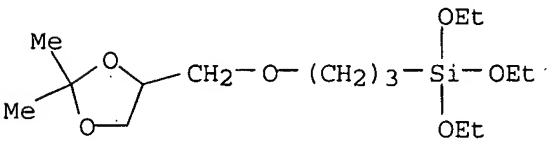
IT 863015-09-2DP, trimethylsilyl-terminated, deprotected
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of organosilicon compds. for organic silicone resin having diols)

CAS ONLINE PRINTOUT

RN 863015-09-2 CAPLUS
CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxy-, polymer with trimethoxymethylsilane (9CI) (CA INDEX NAME)

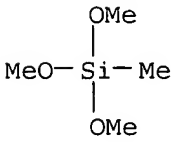
CM 1

CRN 863015-08-1
CMF C15 H32 O6 Si



CM 2

CRN 1185-55-3
CMF C4 H12 O3 Si



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>

CAS ONLINE PRINTOUT

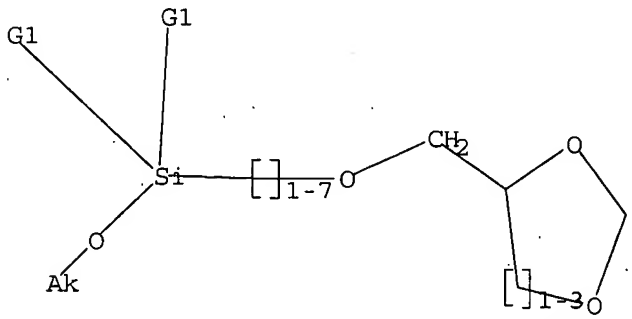
=> d his

(FILE 'HOME' ENTERED AT 07:14:11 ON 24 OCT 2007)

FILE 'REGISTRY' ENTERED AT 07:14:20 ON 24 OCT 2007
L1 STRUCTURE UPLOADED
L2 1 S L1
L3 15 S L1 FUL

FILE 'CAPLUS' ENTERED AT 07:15:09 ON 24 OCT 2007
L4 14 S L3

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 Ak,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,s-BuO,t-BuO

Structure attributes must be viewed using STN Express query preparation.

=> d bib abs hitstr 1-14

L4 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:789423 CAPLUS
DN 147:235149
TI Method for manufacturing cyclic carbonate from epoxy compound and carbon dioxide
IN Hua, Ruimao; Jiang, Jiali; Ma, Deqiang; Song, Jinhong; Shang, Yonghua; Ding, Jiansheng
PA Ningbo Wanhua Polyurethane Co., Ltd., Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 10pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

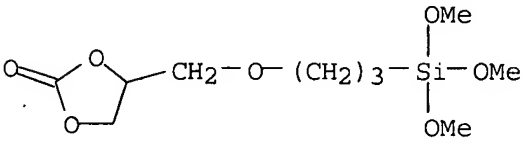
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 100999514	A	20070718	CN 2006-10170993	20061228
PRAI	CN 2006-10170993		20061228		

OS CASREACT 147:235149
AB In the invention, the catalyst system is a homogeneous catalyst system with amide RCONR1R2 (R = H, Me, Et; R1, R2 = H, Me, Et, n-Pr, iso-Pr, Bu, etc.) as a catalyst and water as a promoter. The title method comprises the steps of: (1) adding amide to a reactor, adding water and epoxy compound, and sealing, (2) pumping carbon dioxide gas into the reactor, stirring, heating and reacting, and (3) stopping heating after reacting for 1-20 h, stirring, cooling to room temperature, and releasing the gas. The method has the advantages of low catalyst cost, high catalyst activity and

high reaction efficiency. The catalyst is stable, environment-friendly, and easy to reuse.

IT 42345-73-3P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of cyclic carbonate by addition reaction of epoxide with carbon dioxide in presence of amide and water)

RN 42345-73-3 CAPLUS
CN 1,3-Dioxolan-2-one, 4-[[3-(trimethoxysilyl)propoxy]methyl]- (CA INDEX NAME)



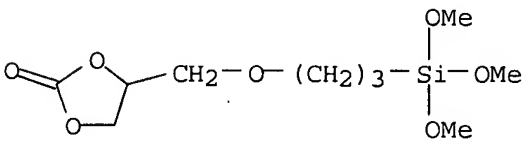
L4 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:287048 CAPLUS
DN 146:341046
TI Cyclic carbonate-modified organosilicon non-aqueous electrolytes for secondary batteries and capacitors
IN Nakanishi, Tetsuo; Kashida, Meguru; Miyawaki, Satoru
PA Shin-Estu Chemical Co., Ltd., Japan
SO U.S. Pat. Appl. Publ., 12pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007059607	A1	20070315	US 2006-514106	20060901
	JP 2007077052	A	20070329	JP 2005-265551	20050913
	KR 2007030682	A	20070316	KR 2006-87897	20060912
	CN 1931863	A	20070321	CN 2006-10151899	20060913
PRAI	JP 2005-265551	A	20050913		

AB A cyclic carbonate-modified silane or siloxane is combined with a nonaq. solvent and an electrolyte salt to form a non-aqueous electrolytic solution This electrolyte is used in a secondary battery which has improved temperature and cycling characteristics.

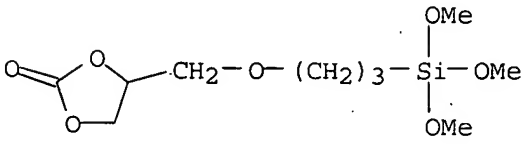
IT 42345-73-3P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cyclic carbonate-modified organosilicon non-aqueous electrolytes for secondary batteries and capacitors)

RN 42345-73-3 CAPLUS
CN 1,3-Dioxolan-2-one, 4-[[3-(trimethoxysilyl)propoxy]methyl]- (CA INDEX NAME)



CAS ONLINE PRINTOUT

L4 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1198474 CAPLUS
DN 146:121863
TI Efficient DMF-catalyzed coupling of epoxides with CO2 under solvent-free conditions to afford cyclic carbonates
AU Jiang, Jia-Li; Hua, Ruimao
CS Department of Chemistry, Innovative Catalysis Program, Key Laboratory of Organic Optoelectronics and Molecular Engineering of Ministry of Education, Tsinghua University, Beijing, Peop. Rep. China
SO Synthetic Communications (2006), 36(21), 3141-3148
CODEN: SYNCAV; ISSN: 0039-7911
PB Taylor & Francis, Inc.
DT Journal
LA English
OS CASREACT 146:121863
AB To develop a simple, low-mol., and cost-effective organocatalyst for the coupling of epoxides with CO2, we have screened this coupling reaction in different organic solvents and found that DMF is an efficient organic catalyst for the coupling of epoxides with CO2 to give cyclic carbonates in high yield. In some cases, the catalytic activity of DMF can be significantly increased by the addition of catalytic amount of H2O.
IT 42345-73-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of cyclic carbonates by DMF-catalyzed coupling of epoxides with carbon dioxide under solvent-free conditions)
RN 42345-73-3 CAPLUS
CN 1,3-Dioxolan-2-one, 4-[[3-(trimethoxysilyl)propoxy]methyl]- (CA INDEX NAME)

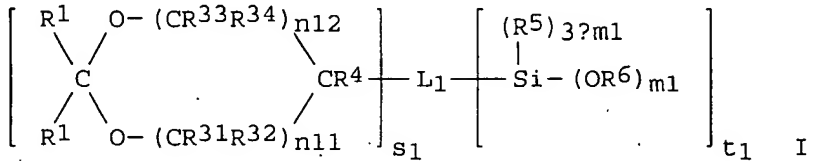


RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:1074041 CAPLUS
DN 143:369971
TI Sol-gel reaction products, solid electrolytes, protonic conductors, and membrane-electrode assemblies for fuel cells
IN Wariishi, Koji
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 40 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005272556	A	20051006	JP 2004-86053	20040324
PRAI	JP 2004-86053		20040324		

OS MARPAT 143:369971
GI

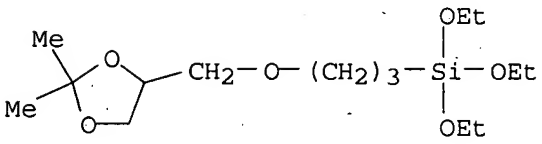


AB The reaction products are prepared from I (R1, R2 = H, alkyl, aryl, heterocyclic ring, R1 and R2 may link together to form a ring; R31, R32, R33, R34, R4 = H, alkyl, aryl, heterocyclic ring; R5 = alkyl, aryl, heterocyclic ring; R6 = H, alkyl, aryl, silyl; m1 = 1-3; n11, n12 = 0-4; L1 = single bond, linkage group with valency (s1 + t1); s1, t1 = 1-4), and compds. having proton-donating substituent groups. The protonic conductors show high protonic conductivity and low methanol permeability.

IT 863015-08-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of cyclic acetal-containing alkoxysilanes for sol-gel reaction products for protonic conductors of fuel cells)

RN 863015-08-1 CAPLUS

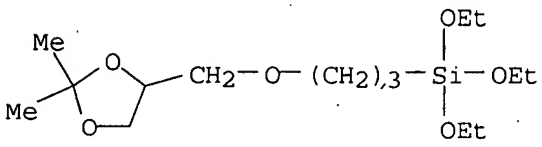
CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxy- (9CI) (CA INDEX NAME)



IT 863015-08-1DP, polymers with oxidized mercaptoalkyltrialkoxysilanes and alkoxysilanes 866228-58-2P
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sol-gel reaction products of cyclic acetal-containing alkoxysilanes and proton-donating compds. for protonic conductors of fuel cells)

RN 863015-08-1 CAPLUS

CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxy- (9CI) (CA INDEX NAME)



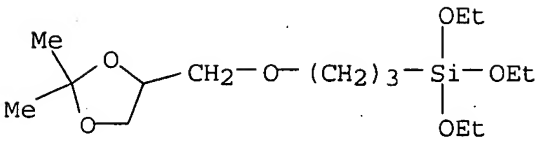
RN 866228-58-2 CAPLUS

CN 1-Propanesulfonic acid, 3-(triethoxysilyl)-, polymer with [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxysilane and 4,4,13,13-tetraethoxy-3,14-dioxa-4,13-disilahexadecane (9CI) (CA INDEX NAME)

CM 1

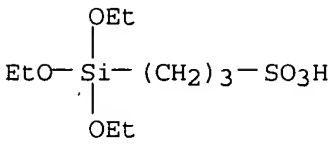
CRN 863015-08-1
CMF C15 H32 O6 Si

CAS ONLINE PRINTOUT



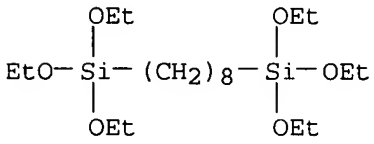
CM 2

CRN 260784-99-4
CMF C9 H22 O6 S Si



CM 3

CRN 52217-60-4
CMF C20 H46 O6 Si2



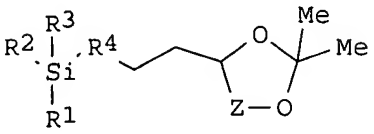
L4 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:902902 CAPLUS
DN 143:230419
TI Preparation of organosilicon compounds for organic silicone resin having diols with good storage stability
IN Komuro, Katsuhiko; Suzuki, Hiroshi
PA Toagosei Co., Ltd., Japan
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005077960	A1	20050825	WO 2005-JP1972	20050209

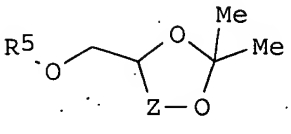
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,

EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG
KR 2007010124 A 20070122 KR 2006-718987 20060915
US 2007173625 A1 20070726 US 2007-589262 20070111
PRAI JP 2004-39064 A 20040216
JP 2004-39065 A 20040216
WO 2005-JP1972 W 20050209

GI



I

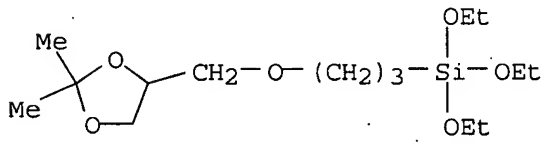


II

AB The organosilicon resin having a diol is prepared by hydrolyzing/condensing an organic compound I obtained by hydrosilylation reaction between a compound II and a silane compound R1R2R3SiH with a polyfunctional alkoxysilane, wherein R1, R2, R3 = C1-6 alkyl or alkoxy; R4 = C2-6 alkylene; R5 = alkene having a terminal C:C bond and Z = C1-3 alkylene. The organosilicon resin is produced by the hydrolysis/condensation of a mixture comprising the organosilicone compound I and a mol. weight modifier. Thus, 227 mmol 2,2-dimethyl-1,3-dioxolane-4-methanol and 250 mmol allyl bromide were reacted in the presence of sodium hydride, 119 mmol of the resulting 4-[(allyloxy)methyl]-2,2-dimethyl-1,3-dioxolane was reacted with 131 mmol triethoxysilane in the presence of a divinyltetramethyldisiloxane platinum complex to give 4-[(3-triethoxysilylpropyloxy)methyl]-2,2-dimethyl-1,3-dioxolane, 12 mmol of which was reacted with 44.1 mmol methyltrimethoxysilane and 12 mmol hexamethyldisiloxane in the presence of 3.74 g 1.5% aqueous hydrochloric acid for 1.5 h, reacted with hexamethyldisilazane, and dried to give a silsesquioxane resin having diols, showing good storage stability.

IT 863015-08-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of organosilicon compds. for organic silicone resin having diols)

RN 863015-08-1 CAPLUS
CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxy- (9CI) (CA INDEX NAME)



IT 863015-09-2DP, trimethylsilyl-terminated, deprotected
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of organosilicon compds. for organic silicone resin having diols)

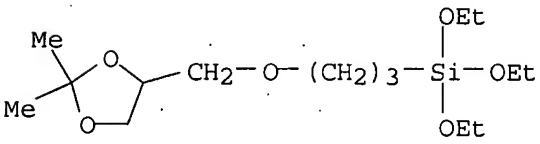
RN 863015-09-2 CAPLUS

CAS ONLINE PRINTOUT

CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]triethoxy-, polymer with trimethoxymethylsilane (9CI) (CA INDEX NAME)

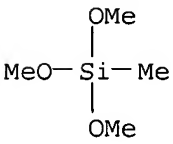
CM 1

CRN 863015-08-1
CMF C15 H32 O6 Si



CM 2

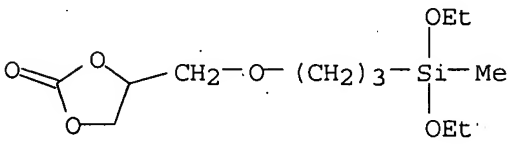
CRN 1185-55-3
CMF C4 H12 O3 Si



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:211150 CAPLUS
DN 139:7268
TI Synthesis and dielectric constants of polymers with cyclic carbonate pendant groups
AU Purdy, Andrew P.; Levien, Elizabeth; Hwang, Ann
CS Chemistry Division, Naval Research Laboratory, Washington, DC, 20375-5342, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2003), 44(1), 854-855
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal; (computer optical disk)
LA English
AB Polymers containing pendant 5-membered cyclic carbonate functionalities were prepared and their dielec. consts. were measured as a function of frequency. Glycerol carbonate methacrylate, a known compound, was polymerized in bulk. It had a dielec. constant~6 at 1 kHz which dropped to ~5 at 1 MHz, with an dielec. loss ~ 0.1 at 1 kHz. Copolymers with Me methacrylate had lower dielec. consts., with similar loss factors. A silicone polymer with propoxy-glycerol carbonate pendant groups was also prepared and crosslinked with varying amts. of Jeffamine T-403 or triethylenetetramine. Dielec. consts. >20 at 1 kHz were obtained, but the materials had high dielec. losses, and showed some ionic conductivity that could have come from autoionization of the hydroxyethyl carbamate crosslink moieties.
IT 532947-06-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

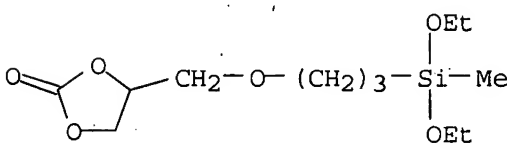
(monomer; synthesis and dielec. consts. of polymers with cyclic carbonate pendant groups)
RN 532947-06-1 CAPLUS
CN 1,3-Dioxolan-2-one, 4-[[3-(diethoxymethylsilyl)propoxy]methyl]- (CA INDEX NAME)



IT 532947-10-7DP, trimethylsilyl-terminated
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oligomeric; synthesis and dielec. consts. of polymers with cyclic carbonate pendant groups)
RN 532947-10-7 CAPLUS
CN 1,3-Dioxolan-2-one, 4-[[3-(diethoxymethylsilyl)propoxy]methyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

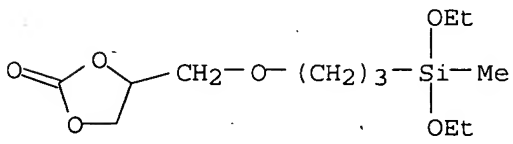
CRN 532947-06-1
CMF C12 H24 O6 Si



IT 532947-13-0P 532947-15-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and dielec. consts. of polymers with cyclic carbonate pendant groups)
RN 532947-13-0 CAPLUS
CN 1,3-Dioxolan-2-one, 4-[[3-(diethoxymethylsilyl)propoxy]methyl]-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 532947-06-1
CMF C12 H24 O6 Si

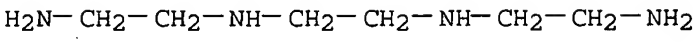


CM 2

CRN 112-24-3

CAS ONLINE PRINTOUT

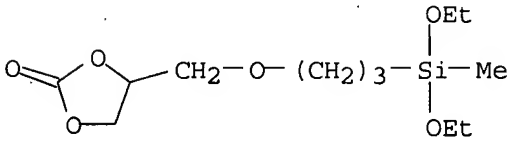
CMF C6 H18 N4



RN 532947-15-2 CAPLUS
CN 1,3-Dioxolan-2-one, 4-[[3-(diethoxymethylsilyl)propoxy]methyl]-, polymer with α-hydro-ω-(2-aminomethylethoxy)[poly[oxy(methyl-1,2-ethanediyl)]] ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 532947-06-1
CMF C12 H24 O6 Si



CM 2

CRN 39423-51-3
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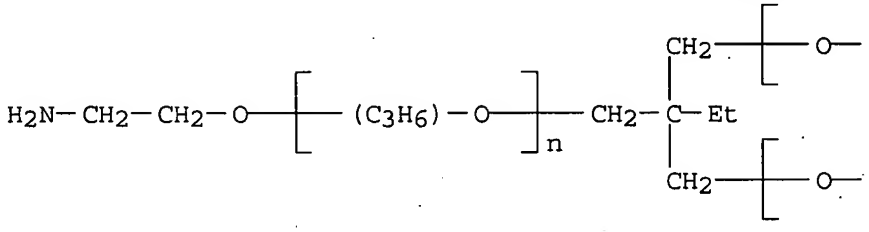
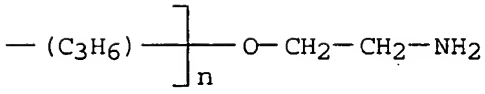
CCI IDS, PMS

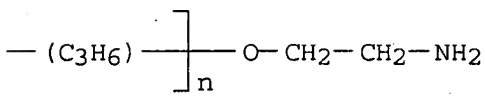
PAGE 1-A



3 (D1—Me)

PAGE 1-B





RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

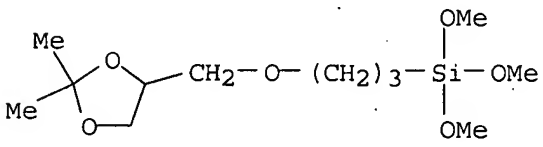
CAS ONLINE PRINTOUT

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:335569 CAPLUS
DN 129:67867
TI Preparation of 1,3-dioxolane-ring-containing alkoxysilanes as silane coupling agents
IN Ishikawa, Kazunori
PA Yokohama Rubber Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10139787	A	19980526	JP 1996-294933	19961107
JP 3819087	B2	20060906		
PRAI JP 1996-294933		19961107		

OS MARPAT 129:67867
AB Compds. containing 1,3-dioxolane ring and alkoxysilyl group are prepared as silane coupling agents for adhesives, sealants, and primers (no data). A 187, an epoxy silane, was treated with BF3.OEt2 in Me2CO to give 52% 2,2-dimethyl-4-(3-trimethoxysilylpropoxy)methyl-1,3-dioxolane.
IT 208923-72-2P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of dioxolane-containing alkoxysilanes as silane coupling agents)
RN 208923-72-2 CAPLUS
CN Silane, [3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]propyl]trimethoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:171857 CAPLUS
DN 124:203302
TI Hydrolyzable and polymerizable silanes containing 2-oxo-1,3-dioxacycloalkyl groups and their preparation and use
IN Wolter, Herbert
PA Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung e.V., Germany
SO Ger., 30 pp.
CODEN: GWXXAW
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 4423811	C1	19960118	DE 1994-4423811	19940706
EP 694550	A2	19960131	EP 1995-107099	19950511
EP 694550	A3	19980415		
EP 694550	B1	20010808		

R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE

	AT 203995	T	20010815	AT 1995-107099	19950511
	US 5756767	A	19980526	US 1997-856939	19970515
	US 5917075	A	19990629	US 1997-995373	19971222
PRAI	DE 1994-4423811	A	19940706		
	US 1995-499026	B1	19950706		
	US 1997-856939	A3	19970515		

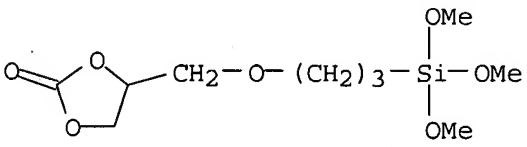
OS MARPAT 124:203302

AB The title compds., e.g., RCH2O(CH2)3Si(OMe)2R1 (I; R = 2-oxo-1,3-dioxacyclopentyl; R1 = OMe, Me); are prepared for use as monomers and reactants. Reacting (3-glycidyloxypropyl)trimethoxysilane with CO2 gave I (R1 = OMe) which was reacted with H2NCH2CH2NH2 to give [(MeO)3Si(CH2)3OCH2CH(OH)CH2O2CNHCH2]2.

IT 42345-73-3P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation as hydrolyzable and polymerizable monomer and reactant and ring-opening reaction with ethylenediamine)

RN 42345-73-3 CAPLUS

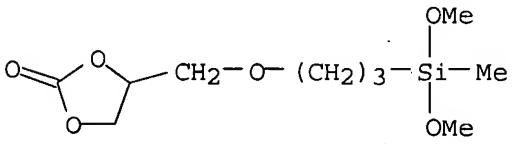
CN 1,3-Dioxolan-2-one, 4-[[3-(trimethoxysilyl)propoxy]methyl]- (CA INDEX NAME)



IT 174569-12-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of hydrolyzable and polymerizable)

RN 174569-12-1 CAPLUS

CN 1,3-Dioxolan-2-one, 4-[[3-(dimethoxymethylsilyl)propoxy]methyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:222363 CAPLUS

DN 122:291655

TI A new silane precursor with reduced polymerization shrinkage

AU Wolter, H.; Storch, W.

CS Fraunhofer-Institut Silicatforschung, Wuerzburg, Germany

SO Journal of Sol-Gel Science and Technology (1994), 2(1/2/3), 93-6
CODEN: JSGTEC; ISSN: 0928-0707

PB Kluwer

DT Journal

LA English

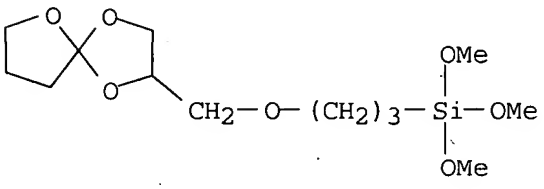
AB Silsesquioxanes with reduced shrinkage during curing are prepared from 2-[[3-(trimethoxysilyl)propoxy]methyl]-1,4,6-trioxaspiro[4.4]nonane (I). The I is prepared by condensation of butyrolactone with [3-

(glycidyloxy)propyl]trimethoxysilane. The polymer network is formed by hydrolytic polymerization of the trimethoxysilane moiety and the crosslinking is carried out by a thermal or photochem. cationic ring-opening process.

IT 148887-01-8P, 2-[[3-(Trimethoxysilyl)propoxy]methyl]-1,4,6-trioxaspiro[4.4]nonane
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; in preparation of low-shrinkage curing silsesquioxanes)

RN 148887-01-8 CAPLUS

CN Silane, trimethoxy[3-(1,4,6-trioxaspiro[4.4]non-2-ylmethoxy)propyl]- (9CI) (CA INDEX NAME)



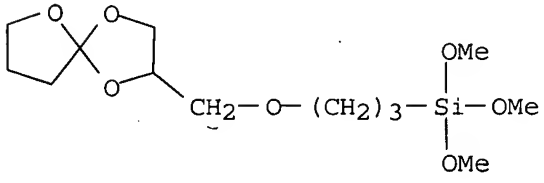
IT 163214-76-4P, 2-[[3-(Trimethoxysilyl)propoxy]methyl]-1,4,6-trioxaspiro[4.4]nonane homopolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of low-shrinkage curing)

RN 163214-76-4 CAPLUS

CN Silane, trimethoxy[3-(1,4,6-trioxaspiro[4.4]non-2-ylmethoxy)propyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 148887-01-8
CMF C13 H26 O7 Si



L4 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1993:473279 CAPLUS

DN 119:73279

TI Preparation and use of polymerizable and hydrolyzable silanes

IN Wolter, Herbert

PA Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung eV, Germany

SO Ger., 20 pp.
CODEN: GWXXAW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4125201	C1	19921001	DE 1991-4125201	19910730
	EP 525392	A1	19930203	EP 1992-110752	19920625

	EP 525392	B1	19960821		
	R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE				
	AT 141607	T	19960915	AT 1992-110752	19920625
	US 5414093	A	19950509	US 1992-916584	19920720
	JP 05222199	A	19930831	JP 1992-204107	19920730
	JP 3187150	B2	20010711		
PRAI	DE 1991-4125201	A	19910730		

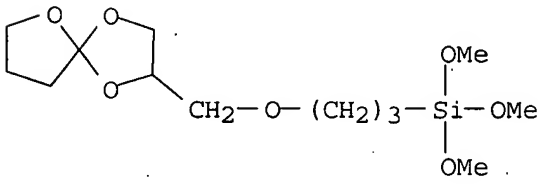
OS MARPAT 119:73279

AB The silanes YnSiXmR4-m-n (X = H, halogen, OH, alkoxy, acyloxy, acyl, carboalkoxy, amino; Y = 1,4,6-trioxaspiro[4.4]nonyl group, optionally substituted; m, n = 1-3; m + n ≤4), useful in the preparation of coatings, adhesives, sealants, etc., are prepared Adding 307 g [3-(glycidyloxy)propyl]trimethoxysilane in 300 mL CH2Cl2 over 1 h to 129 g γ-butyrolactone and 4.62 g BF3.Et2O in 600 mL CH2Cl2 stirred at room temperature and stirring for 2 h gave 2-[[3-(trimethoxysilyl)propoxy]methyl]-1,4,6-trioxaspiro[4.4]nonane (I). Adding 1.20 mg Et3N and 0.54 g H2O dropwise to 6.54 g I and stirring for .apprx.20 h at room temperature gave a siloxane which could be cured by cationic polymerization

IT 148887-01-8P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolytic polymerization of)

RN 148887-01-8 CAPLUS

CN Silane, trimethoxy[3-(1,4,6-trioxaspiro[4.4]non-2-ylmethoxy)propyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1986:609334 CAPLUS

DN 105:209334

TI 1-O-[3-(Triethoxysilyl)propyl]- and 1-O-[3-(diethoxymethylsilyl)propyl]-2,3:4,5-di-O-isopropylidene-D-arabinitol

IN Capka, Martin; Hetflejs, Jiri; Holy, Antonin; Rosenberg, Ivan

PA Czech.

SO Czech., 3 pp.
CODEN: CZXXA9

DT Patent

LA Czech

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CS 229088	B1	19840514	CS 1982-8567	19821129
PRAI	CS 1982-8567		19821129		

GI For diagram(s), see printed CA Issue.

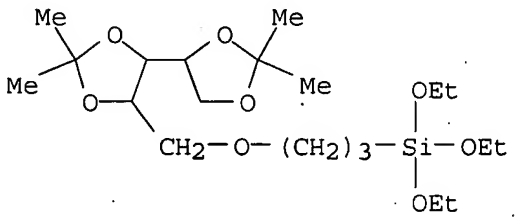
AB The title compds. (I; R = OEt, Me) were prepared in 41-45% yield by addition of (EtO)3SiH and (EtO)2MeSiH, resp., to 1-O-allyl-2,3:4,5-di-O-isopropylidene-D-arabinitol at 120° in THF, catalyzed by H2PtCl6. I are modifiers of inorg. supports in chromatog. and immobilization of biol. substances.

IT 105239-74-5P 105239-75-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as chromatog. support modifier, for immobilization of biol. substances)

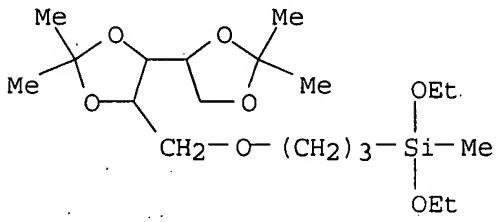
RN 105239-74-5 CAPLUS

CAS ONLINE PRINTOUT

CN D-Arabinitol, 2,3:4,5-bis-O-(1-methylethylidene)-1-O-[3-(triethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



RN 105239-75-6 CAPLUS
CN D-Arabinitol, 1-O-[3-(diethoxymethylsilyl)propyl]-2,3:4,5-bis-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

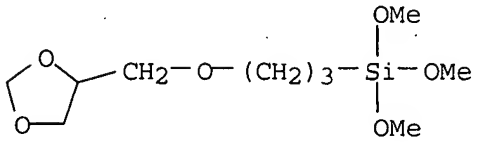


L4 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1979:205196 CAPLUS
DN 90:205196
TI Use of silanes having capped functional groups as adhesivizing agents
IN Amort, Juergen; Nestler, Heinz
PA Dynamit Nobel A.-G., Fed. Rep. Ger.
SO U.S., 5 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4118540	A	19781003	US 1976-755876	19761230
	DE 2559259	A1	19770714	DE 1975-2559259	19751231
PRAI	DE 1975-2559259	A	19751231		

AB Compds. such as (EtO)2CHCH2NH(CH2)3Si(OMe)3 [63968-38-7] and 4-[[3-(trimethoxysilyl)propoxy]methyl]-1,3-dioxolane [50650-15-2] are useful as coupling agents for improving the adhesion between glass fibers, sand, metal surfaces, etc., and resins such as epoxy and furan resins. Mixts. of the coupling agents and resins, especially phenolic resol resins, have a long shelf life.
IT 50650-15-2
RL: USES (Uses)
(coupling agents, for inorg. oxide and metal surfaces and resins)
RN 50650-15-2 CAPLUS
CN Silane, [3-(1,3-dioxolan-4-ylmethoxy)propyl]trimethoxy- (9CI) (CA INDEX NAME)

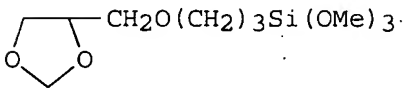
CAS ONLINE PRINTOUT



L4 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1977:519455 CAPLUS
DN 87:119455
TI Silanes with blocked functional groups as adhesion promoters
IN Nestler, Heinz; Amort, Juergen
PA Dynamit Nobel A.-G., Fed. Rep. Ger.
SO Ger. Offen., 12 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2559259	A1	19770714	DE 1975-2559259	19751231
	GB 1577928	A	19801029	GB 1976-52949	19761217
	GB 1577929	A	19801029	GB 1979-21916	19761217
	JP 52084240	A	19770713	JP 1976-160781	19761228
	NL 7614579	A	19770704	NL 1976-14579	19761230
	FR 2336983	A1	19770729	FR 1976-39630	19761230
	FR 2336983	B1	19821203		
	US 4118540	A	19781003	US 1976-755876	19761230
PRAI	DE 1975-2559259	A	19751231		
	GB 1976-52949	A	19761217		

GI

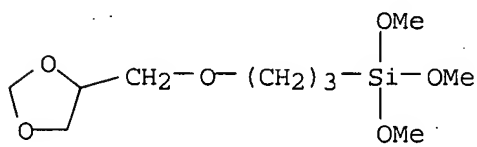


I

AB Alkoxysilanes containing acetal groups or 1,3-doxolane derivs. are useful as corrosion-protective coatings for metals or as couplers for improved adhesion. Thus, a degreased 15 + 8-cm Cu plate is immersed in a 10% alc. HOAc solution of silane I [50650-15-2] and dried 1 h at 130° to give a hard, adherent film which cannot be detached by scratching with a knife.

IT 50650-15-2
RL: USES (Uses)
(coatings for metals and couplers for improved adhesion in fiber-reinforced plastics)

RN 50650-15-2 CAPLUS
CN Silane, [3-(1,3-dioxolan-4-ylmethoxy)propyl]trimethoxy- (9CI) (CA INDEX NAME)

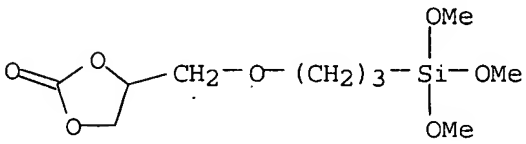


CAS ONLINE PRINTOUT

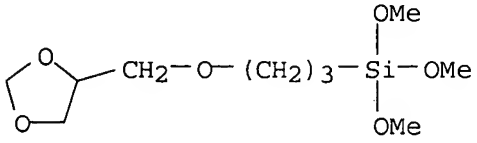
L4 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1973:478952 CAPLUS
DN 79:78952
TI [[(Trimethoxysilyl)propoxy]methyl]-1,3-dioxolanes
IN Koetzsch, Hans J.; Vahlensieck, Hans J.
PA Dynamit Nobel A.-G.
SO Ger. Offen., 11 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2159991	A1	19730614	DE 1971-2159991	19711203
	DE 2159991	C2	19821021		
	GB 1364199	A	19740821	GB 1972-54097	19721122
	CH 575426	A5	19760514	CH 1972-17338	19721128
	US 3825567	A	19740723	US 1972-310495	19721129
	FR 2162115	A1	19730713	FR 1972-42629	19721130
	JP 50040533	A	19750414	JP 1972-121429	19721204
	US 3932464	A	19760113	US 1974-469937	19740514
	US 4213908	A	19800722	US 1975-635533	19751126
PRAI	DE 1971-2159991	A	19711203		
	US 1972-310495	A3	19721129		
	US 1974-469937	A3	19740514		

GI For diagram(s), see printed CA Issue.
AB The Si compds. I and II were prepared by reaction of (MeO)3SiH with the dioxolanes III (RR1 = O; R = R1 = H, resp.) over chloroplatinic acid in Me2CO at 70°. Refluxing I gave [3-(glycidyloxy)propyl]trimethoxysi lane.
IT 42345-73-3P 50650-15-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 42345-73-3 CAPLUS
CN 1,3-Dioxolan-2-one, 4-[[3-(trimethoxysilyl)propoxy]methyl]- (CA INDEX NAME)



RN 50650-15-2 CAPLUS
CN Silane, [3-(1,3-dioxolan-4-ylmethoxy)propyl]trimethoxy- (9CI) (CA INDEX NAME)



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CAS ONLINE PRINTOUT